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The role of the Continence Nurse Specialist in post natal trauma

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Government of South Australia

SA Health

- Based upon the experiential practice of a Continence Nurse Practitioner led Continence Nursing Service
- Principle underlining practice
- Service delivery

Continence Nurse Practitioner (CNP) led Continence Nurse Specialist (CNS)Service

- Location: Family Clinic Lyell McEwin Hospital
- Purpose of the service: assess and manage bladder, bowel and pelvic floor dysfunction across the lifespan
- Around 3,000 deliveries each year
- Booked out 3 months ahead with 100 women on waiting list
- -Work as part of the multidisciplinary team

  -Committed to working with women: informed choices

CNP led CNS team

- CNP endorsed scope of practice
  - Prescribe from NP formulary
  - Pathology
  - Refer to specialist service
  - Policy and guideline: CNS team and at a divisional level

- CNP acts as a consultant to support the CNS team scope of practice which incorporates autonomous practice and pathology access

Priority 1 CNP/S	Priority Two CNP/S	Midwife
Previous birth trauma	Severe Perineal / vulval oedema IUC/drainage systems	Midwife coalface role
Obstetric Anal Sphincter Injury (OASIS)	Large Haematoma	Perineal trauma
Post Partum Urinary Retention	Haemorrhoids : non responsive	Oedema
Severe urinary incontinence/ fistula	Anal fissures: non responsive	IUC
Pelvic Organ Prolapse		Haemorrhoids
		Home visiting midwives

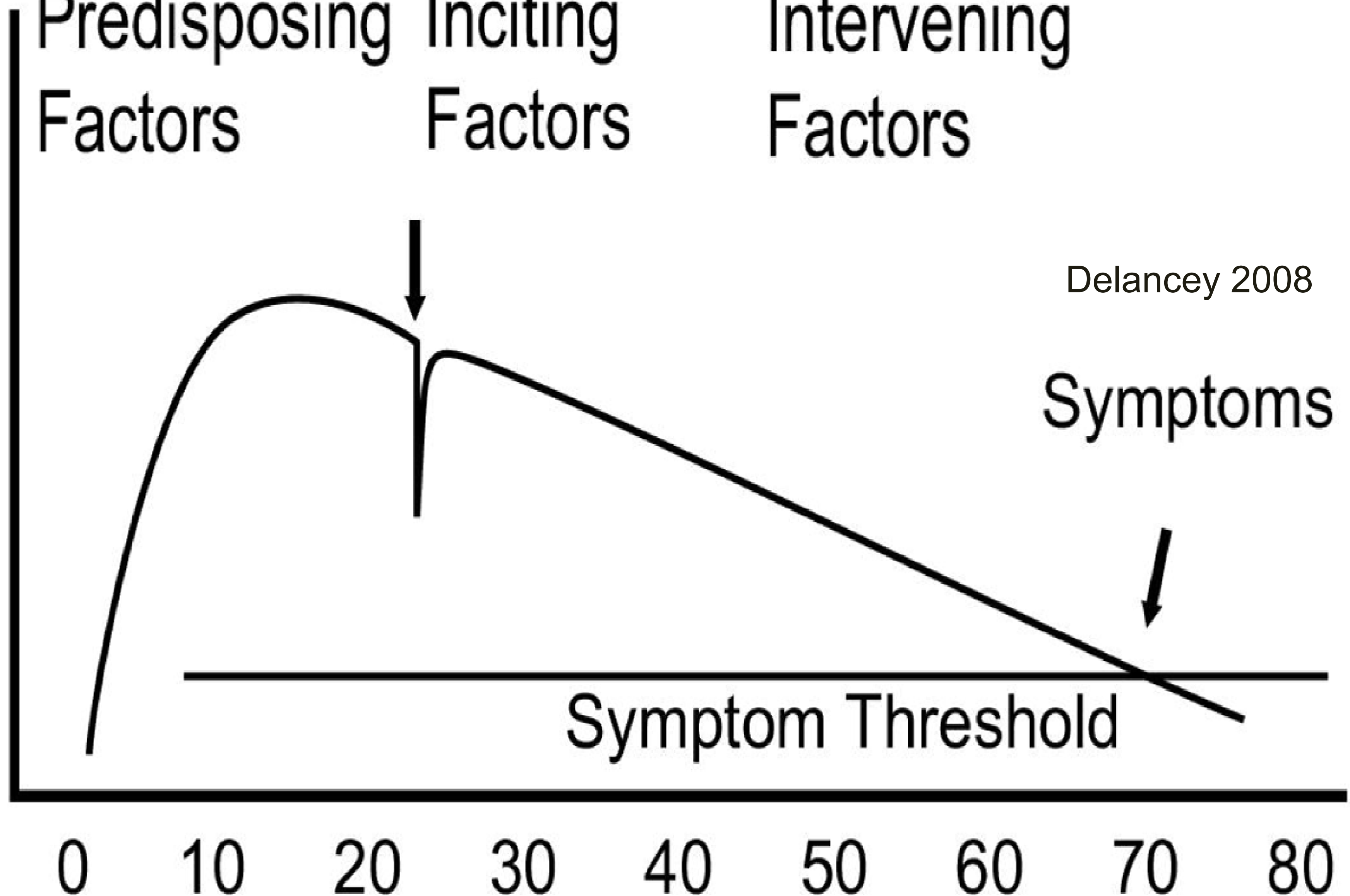
COALFACE 200+ midwives and 20+ doctors ← 2FTE CNS/P

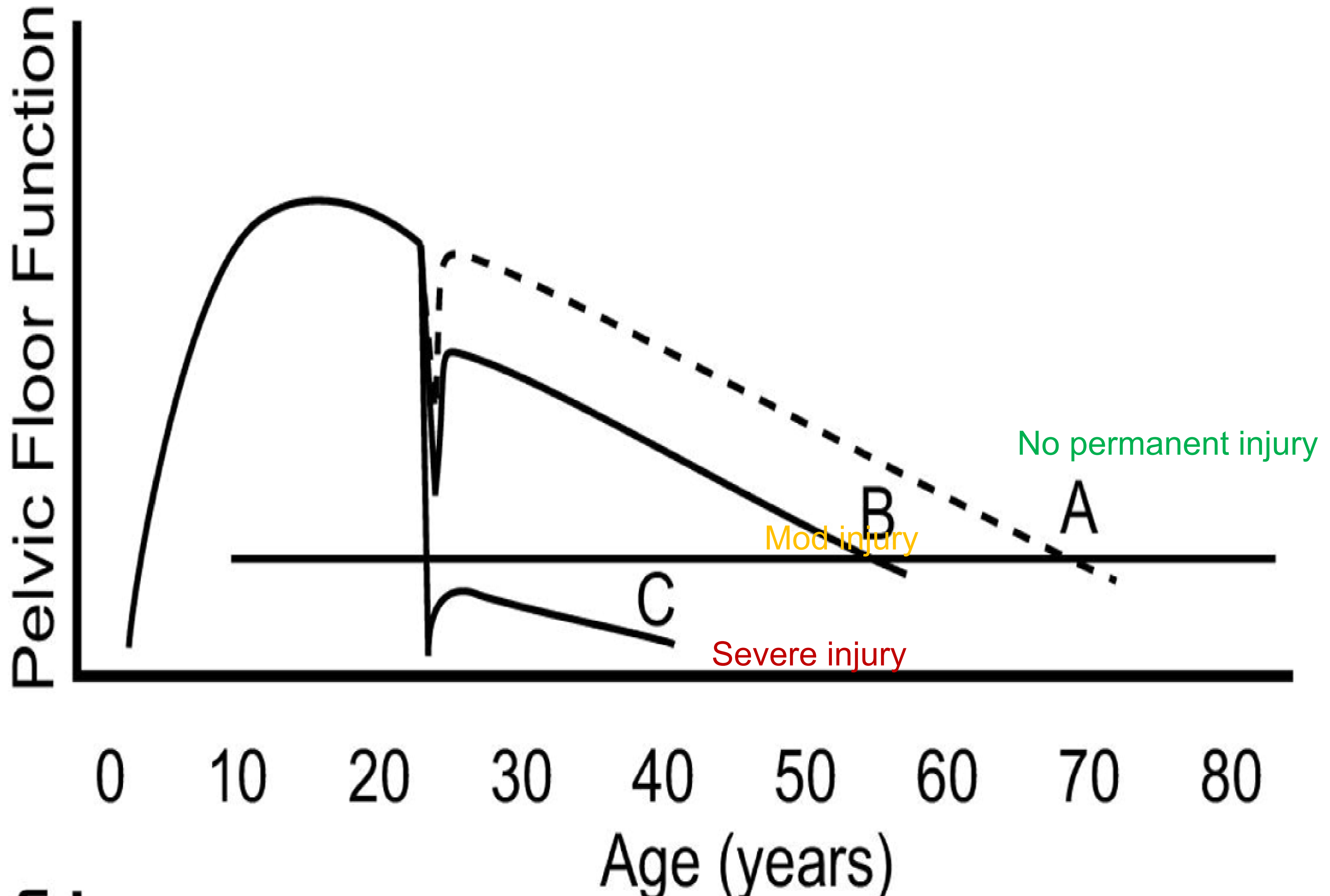
Its all about preserving and promoting the functional pelvic floor reserve

DeLancey JO et al. Graphic integration of causal factors of pelvic floor disorders: an integrated lifespan model. AM J Obstet Gynecol 2008 Dec;199(6):610e1-5.

Lifespan Analysis of Pelvic Floor Function

Phase I: **Phase II:** **Phase III:**




Birth Damage and Repair
DeLancey 2008
Pelvic Floor Function
No permanent injury
A
B
Mod injury
C
Severe injury
0
10
20
30
40
50
60
70
80
Age (years)

Multi-disciplinary team is mandatory for post natal trauma

- CNS/P co-management: colorectal / gynaecologist / obstetrician and midwives
- CNP triages ward referrals
- **Not CNP/S role to replace the team at the coalface** as Midwives / Obstetricians deliver care over 24 hours → CNP/S act as a consultant for Midwives and Obstetricians → CNS/P review woman with perinatal trauma → liaise with midwife and obstetrician about care plan
- Practice guidelines and educational resources developed CNS/P: peer reviewed, endorsed by W and C Divisional Management Committee → ensuring transparent practice
- Consumer Advisory Committee endorsement for patient resources

Screening for ante natal women at risk

Screening is undertaken by midwives at triage visit and followed up by the CNS service

- Predisposing Conditions: Neurological - Spina bifida, childhood symptoms, history urinary symptoms or bowel symptoms prior to pregnancy, recurrent UTI

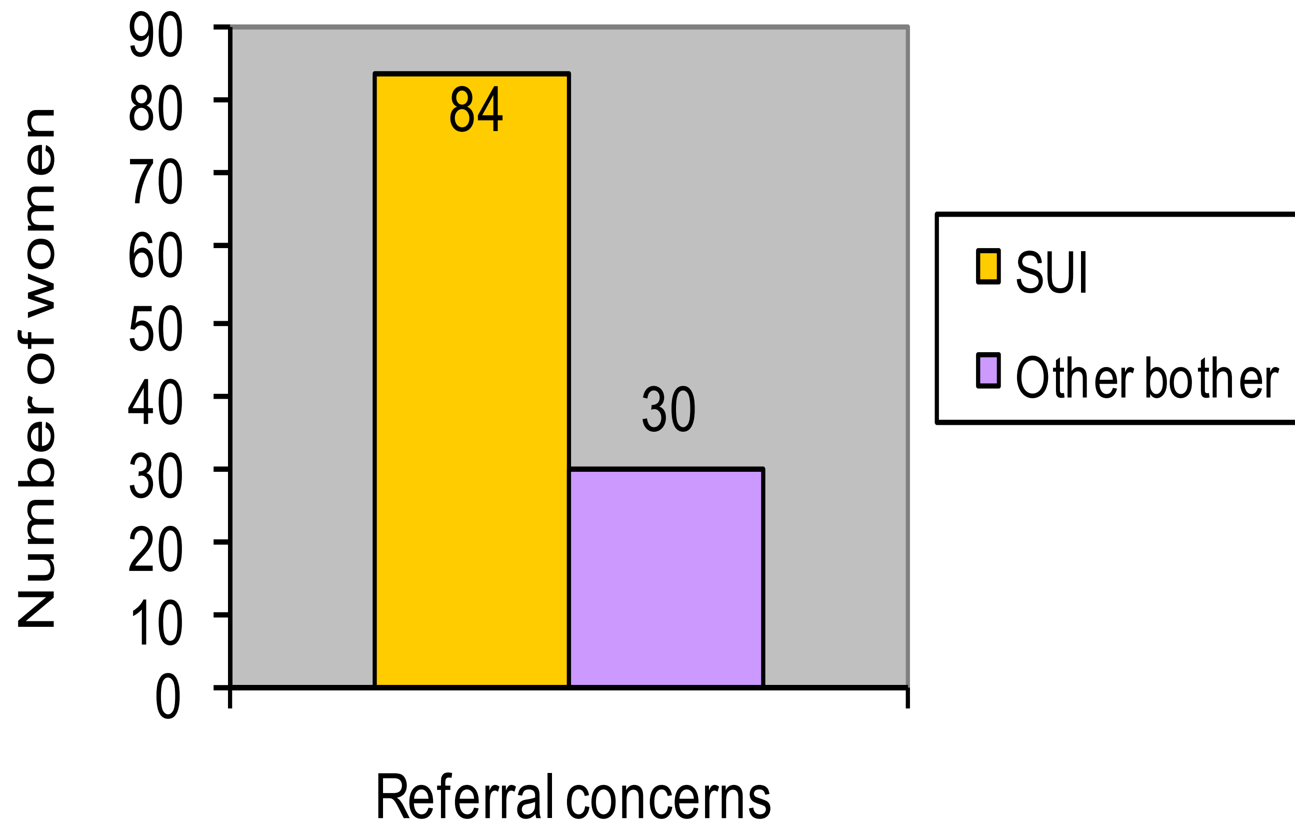
- Inciting (injury): Previous traumatic labour and /or birth, previous post partum urinary retention (PPUR), previous continence / prolapse surgery, haemorrhoids / fissures unresponsive to treatments, previous OASIS

-Women with POP / pessaries / urinary retention in pregnancy

(12 – 16 weeks gestation)

Prioritising

- Prioritised bookings
  - OASIS
  - PPUR
  - Traumatic labour / birth / maternal anxiety
  - POP / pessaries / retention urine in pregnancy
- Phone Service provision: pregnancy and post partum women referred with SUI
  - CNS phone consult: asses service needs
  - Vaizey score (AI) and Cleveland (anorectal function)
  - Counselling
  - Post educational literature
  - Woman satisfaction with phone service determined: Visual Analog
  - Booking post partum for non resolution and desire for treatment
  - CNS/P booking for suspected occult OASIS or non reassuring phone consult


Phone Referral Concerns of 116 Women to CNS Feb - July 2010
Number of women
90
80
70
60
50
40
30
20
10
0
84
30
SUI
Other bother
Referral concerns

CNS summary of bother from phone consults for pregnant and post partum women with reported UI.

- 116 women referred with SUI: 11 women disclosed an issue with A.I/ rectal urgency.
- From this group: Average Vaizey score= 4.7. (range 10 - 2)
- Average Cleveland score = 2.9 (range 1 -13).
- 3 of 11 women were postnatal, 8 were pregnant
- 7 had follow up EAUS: defect/s of both sphincters → advise avoid further obstetric trauma
- 4 Declined EAUS

Post natal trauma injury (inciting) CNP/S scope of practice

- Referral pathway midwives and obstetrician
  - Acute OASIS
  - Failed Trial of Void
  - No sensation or decreased sensation to void
  - Haemorrhoids grade 3 and 4
  - Indwelling urinary catheter with severe perineal oedema
  - Suspected occult OASIS
  - Pelvic organ prolapse
  - Bladder injury at caesarean section placenta accreta /cystectomy / fistula
  - Spina bifida
  - Urinary incontinence

CNP/S Acute OASIS

- Review on ward post partum / completion OASIS MR 534 and implement behavioural therapy program / biofeedback over period 12 months
- Registrar debriefing on ward
- CNS outpatient service

  -Phone consult 2-4 weekly first six months

  -Clinic review 3 months: St Mark's Vaizey et al (anal incontinence) and Cleveland (ano rectal function) MR532 CNS review and MR 533 urogenital and anorectal assessment tool, consent for perineal clinic review with endo anal ultrasound

  - Phone consult at 6 and12 months

What do women want?

- Women need pictures
- Educational literature: standardised and endorsed
- Education about OASIS from day 1
- Continuity of care
- Self care empowerment / demystify
- Understand pelvic floor muscle deficiencies / feel it working
- Can self report changes
- Have a copy of EAUS findings and diagrams
- They need time to digest / reflect / decide what service they want
- Discuss future birth plan with the obstetric consultant
- None of the above

Audit / database OASIS

- Set up database 2007 to enable review of practice issues and report outcomes
- Ongoing modification of database to capture additional information
- Facilitate research opportunities
- Challenge is to do this within clinical workload
- Research is part of the nurse practitioner and the nurse specialist role
- 2009 Australian Nurse Practitioner review of NP's undertaking research identified 1% NP's doing research

Post partum urinary retention (PPUR)

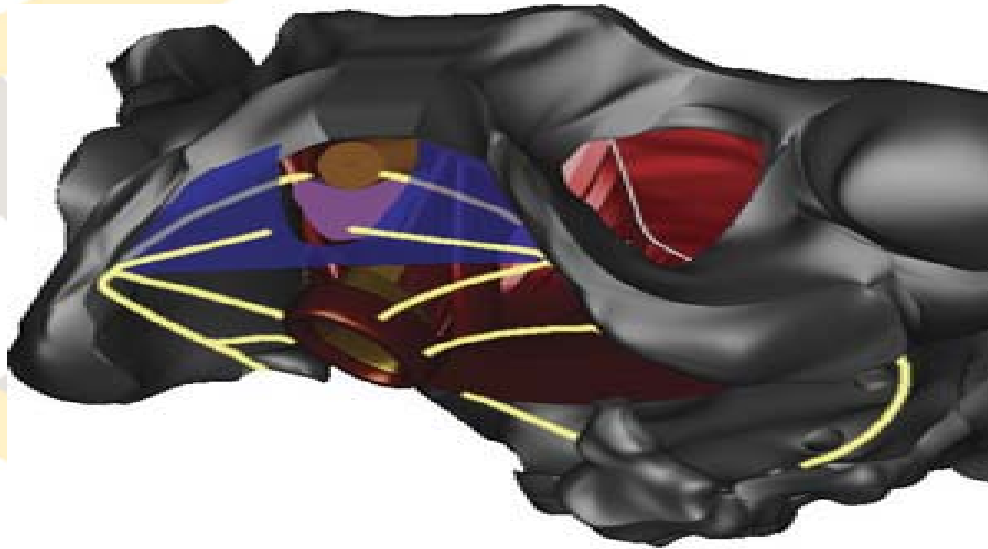
Contributing factors include

- duration of labour longer than 800minutes (13 ½ hours)
- epidural analgesia during labour or delivery
- instrumental delivery
- caesarean section
- pelvic floor trauma
- first vaginal birth (Yip et al 1998 and Ching Chung et al 2002)

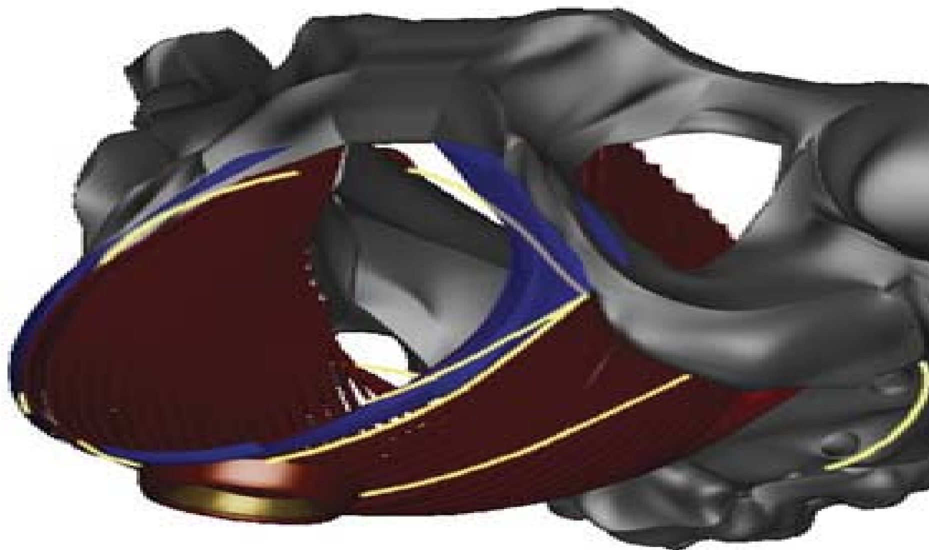
> Poor bladder management in labour is thought to result in voiding difficulties in the immediate post partum period (Dolman 2003)

> Health care team must be cognizant about normal voiding parameters and how to assess

Pudendal nerve stretch- geometric changes a computer simulation



Pudendal nerve &pelvic floor structure geometry at the beginning of 2nd stage (top)



Simulated pudendal nerve and pelvic floor geometry at the end of second stage (bottom) in oblique view (Lien et al, May 2005 American J of O&G)

Neural injury

- 80% of women following vaginal birth have dennervation. Reinnervation over 90 days for 80% of this group
- Women with ongoing bother bladder or bowel after 90 days need follow up

PPUR
Aim post partum

- 80% of bladder volume should be passed with each void
- Expect volumes 300-400+mls each void
- Avoid detrusor over distension > 600mls
- Benchmark: Residual > 100mls needs further investigation by MW / Dr. 150mls more commonly quoted
- Woman referred to Continence Nurse Specialist for assessment if fails the trial of void
- Bard or GE scanner not helpful as measures echogenic uterine debris first 3-4 weeks post partum

Long term outcome

- A single episode of bladder over distension may cause persistent retention with recurrent urinary tract infection (UTI) and permanent voiding difficulties *(Yip et al 1998)*

- Clinical skills:
  - -fundus is firm and central
  - -normal lochia
  - -percussion can be difficult
  - -voiding parameters

- U/A: Nitrites needs MC & S

- Post partum diuresis has not been studied and reported: I have observed diuresis less than 1 litre in 24 hours to several litres in 24hours

Care of Women at Risk of Voiding Dysfunction Post Partum
Women and Children's Division Lyell McEwin Hospital

Woman has risk factors for voiding dysfunction
(see protocol)

↓

Insert TOV sticker in case notes with removal of indwelling urinary catheter or post partum

↓ (two branches)

Documentation on TOV sticker completed
Reassuring

↓

TOV completed
No further action

Documentation on TOV sticker completed
Non Reassuring – Failed TOV

↓

Refer woman to CNP service

↓

ADDITIONAL INFORMATION
- Woman has post void residual 100-500mls
- Do ISC for 3 consecutive voids immediately post void
- If residuals significantly reducing → continue with regimen and contact CNP service
- If residual 500mls or greater insert IUC and contact CNP service
- Suggest TOV in 48 hours
- If TOV fails CNP/S to counsel woman about treatment options

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Trial of Void Sticker

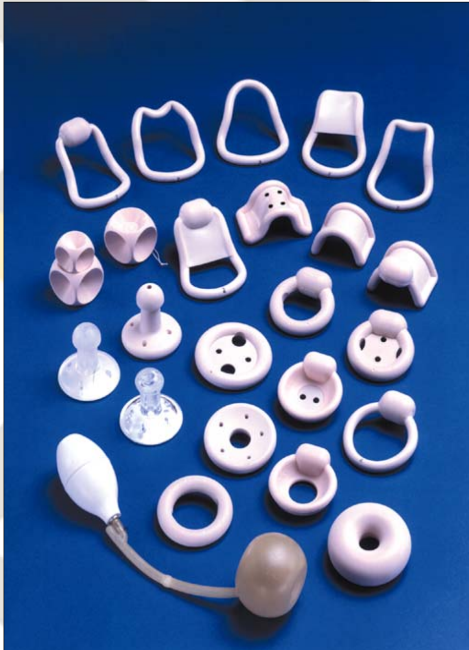
POST PARTUM VOIDING REVIEW
(Circle each response where appropriate)
Date and time of delivery:
Urinary catheter: Yes No Time removed:
Sensation to void: Normal Decreased Absent
Hesitancy initiating void: Yes No
Urine flow: Normal Slow "Start Stop Start"
First Void Volume = Time:
Second Void Volume = Time:
Reassuring: Cease Trial of Void Yes No
Non Reassuring: Refer to CNP Service Yes No
Refer to TOV flow chart Yes No

Acute onset severe urinary incontinence

- Red flag mandatory medical review: exclude fistula / pelvic collection
  - C/O constant dribbling and soaked pads
  - No evidence of normal bladder void pattern
  - Check trial of void and ask about voiding parameters: normal sensation to void, hesitancy starting the flow, good flow, volumes voided →exclude detrusor over distension

  - Exclude delivery with urinary catheter insitu with inflated balloon – may cause severe trauma to urethra
  - Post caesarean section: laceration / cystectomy / fistula track formation

Pelvic organ prolapse



- Co-manage with Obstetrician and Gynaecologist team → never in isolation
- POPQ completed and pelvic floor assessment → PFE
- Assess voiding parameters
- Assess obstructed defaecation
- Address constipation
- Pregnant women have obstetrician insert pessary → liaise with CNP team to co-manage
- Gynaecologist → full discussion all treatment options and review of response
- Birthplan in place to minimise cumulative injury
- Post partum cohort are managed as above

H/O trauma / dyspareunia / long or traumatic labour and delivery /PPUR

- Multi d team approach
- Women often have issues re further pregnancy
- Mental Health Perinatal Nurse Practitioner Team / Psychiatrist / Psychologist
- Referral to CNS/P for assessment of bladder, bowel, pelvic floor function / injury
- Validated assessment tools: King's Questionnaire bladder, PERFECT (pelvic floor assessment), POPQ, Anorectal digital assessment tool MR534 LMH, Vaizey Anal Inc, Cleveland for anorectal function, +/- EAUS
- Obstetric Consultant review 32-34 weeks gestation
- Birth plan in place following Obstetrician review
- Perineal clinic sticker entered in management plan for pregnancy, birth , post partum for OASIS women
- Trial of void post partum in care plan and CNS follow up

Conclusion

- Causation of pelvic floor dysfunction is complex
- Impact of cumulative inciting injury with subsequent childbirth is not well understood → role elect LSCS
- We need to review how we assess and advise women → provide acceptable service provision
- Women need to make informed choices about future birth plans
- Maximise woman's self care that optimises long term functional pelvic floor reserve

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